FIG.1

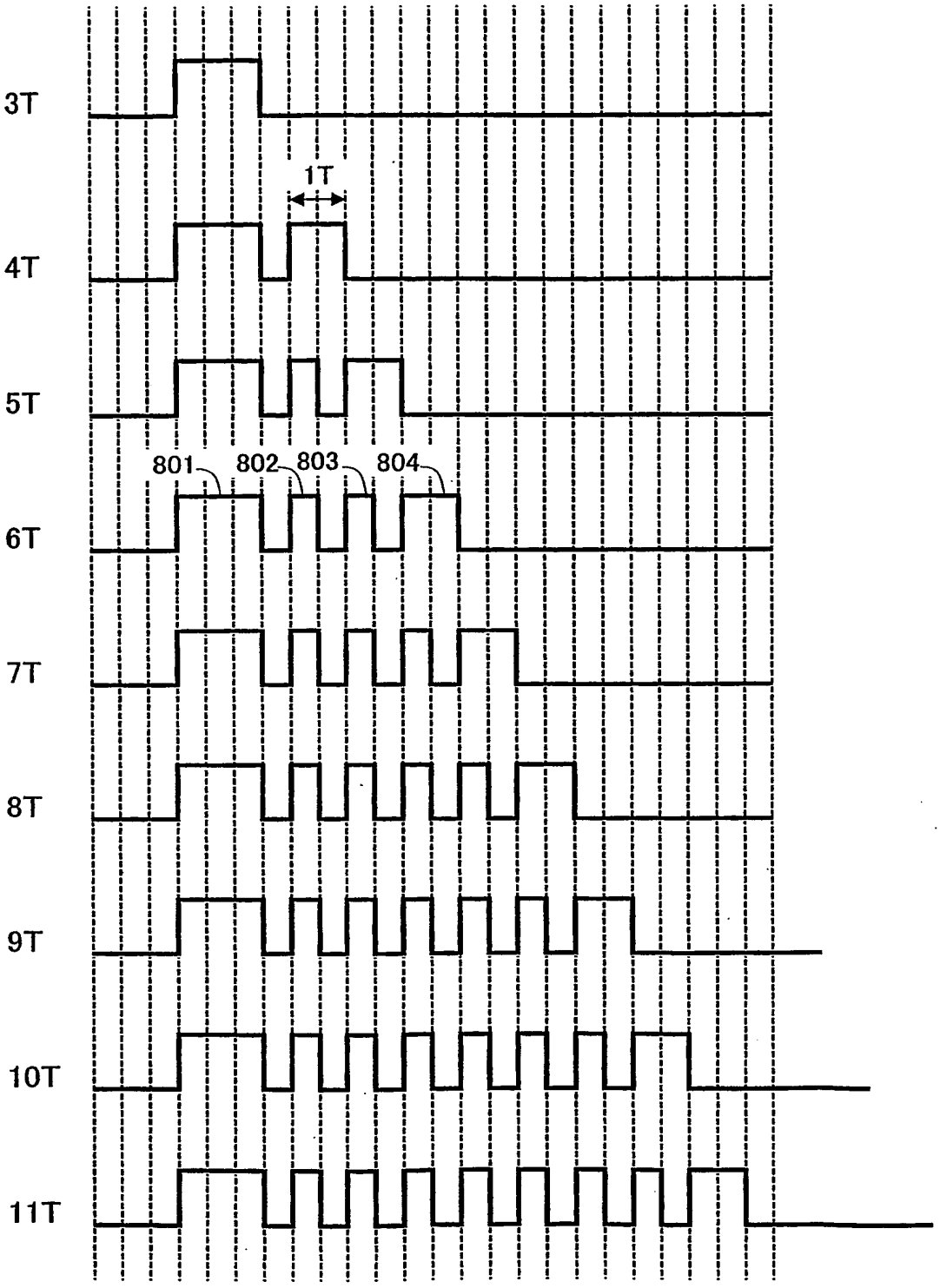


FIG.2

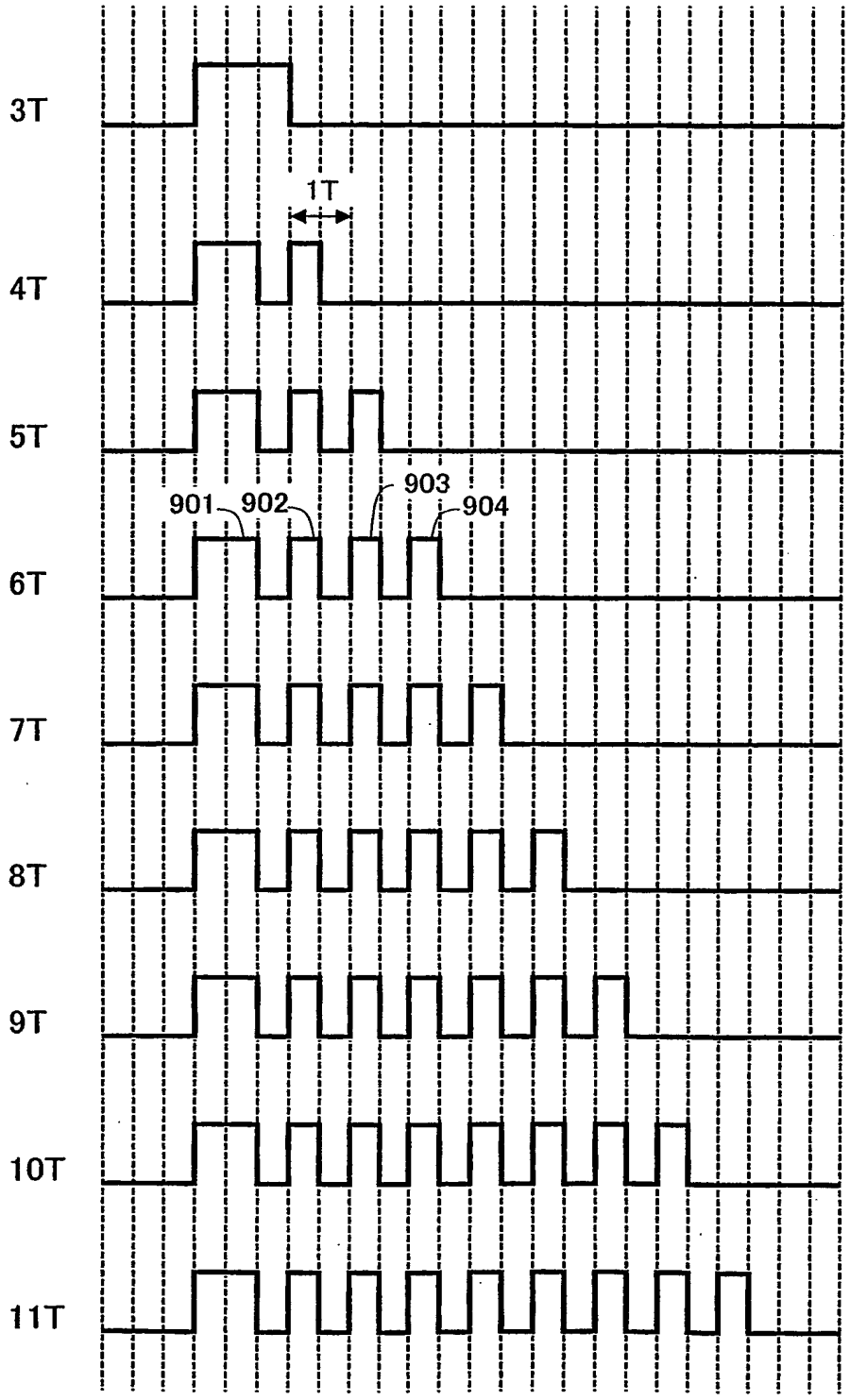


FIG.3

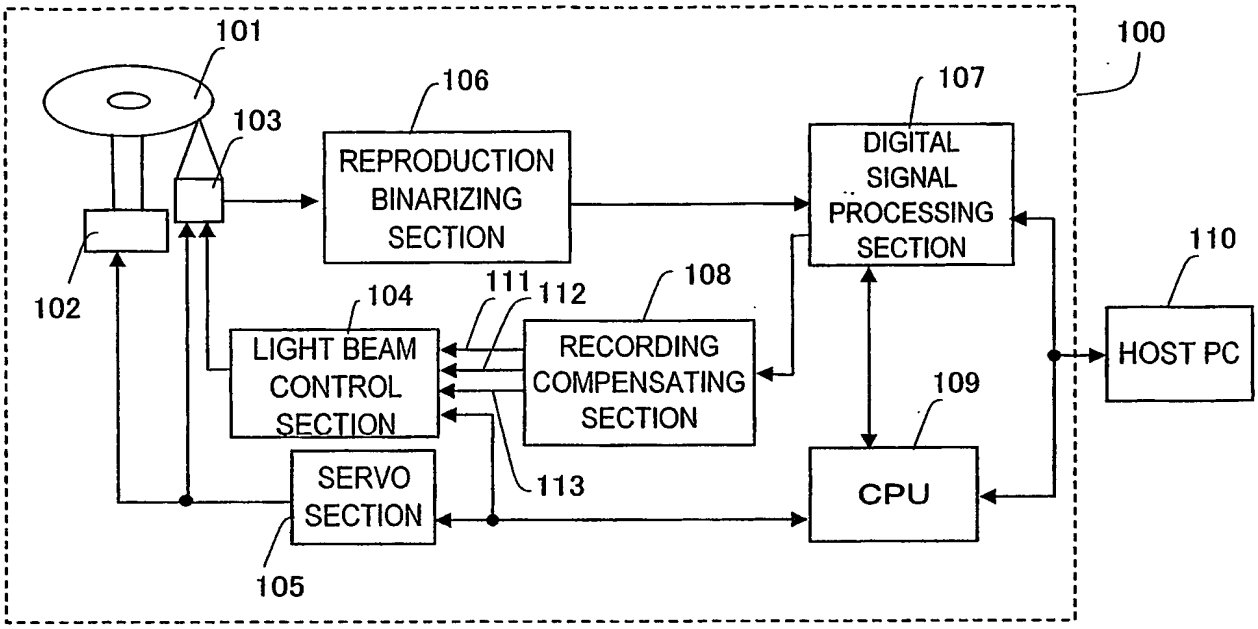

101
100
106
107
103
REPRODUCTION BINARIZING SECTION
DIGITAL SIGNAL PROCESSING SECTION
110
102
104
111
112
108
LIGHT BEAM CONTROL SECTION
RECORDING COMPENSATING SECTION
HOST PC
109
SERVO SECTION
113
CPU
105

FIG.4

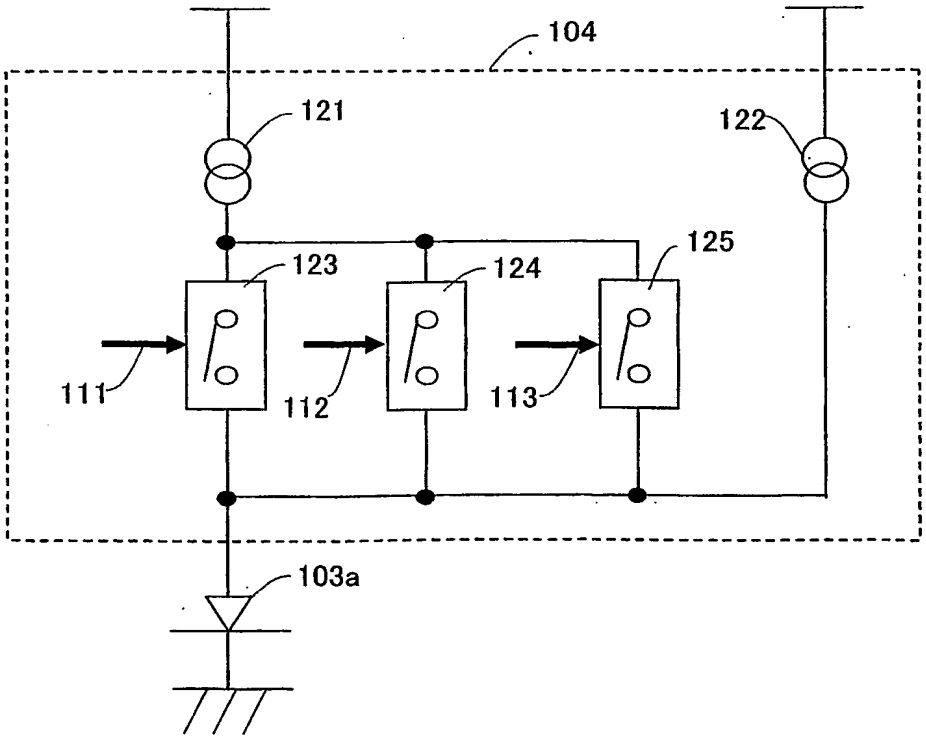

104
121
122
125
123
124
111
112
113
103a

FIG.5

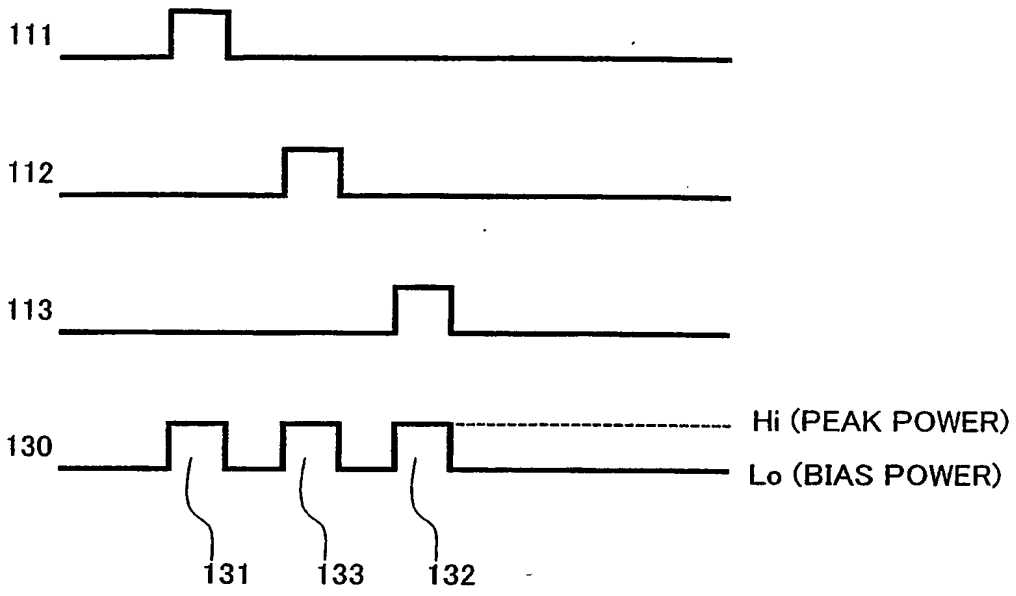


FIG.6

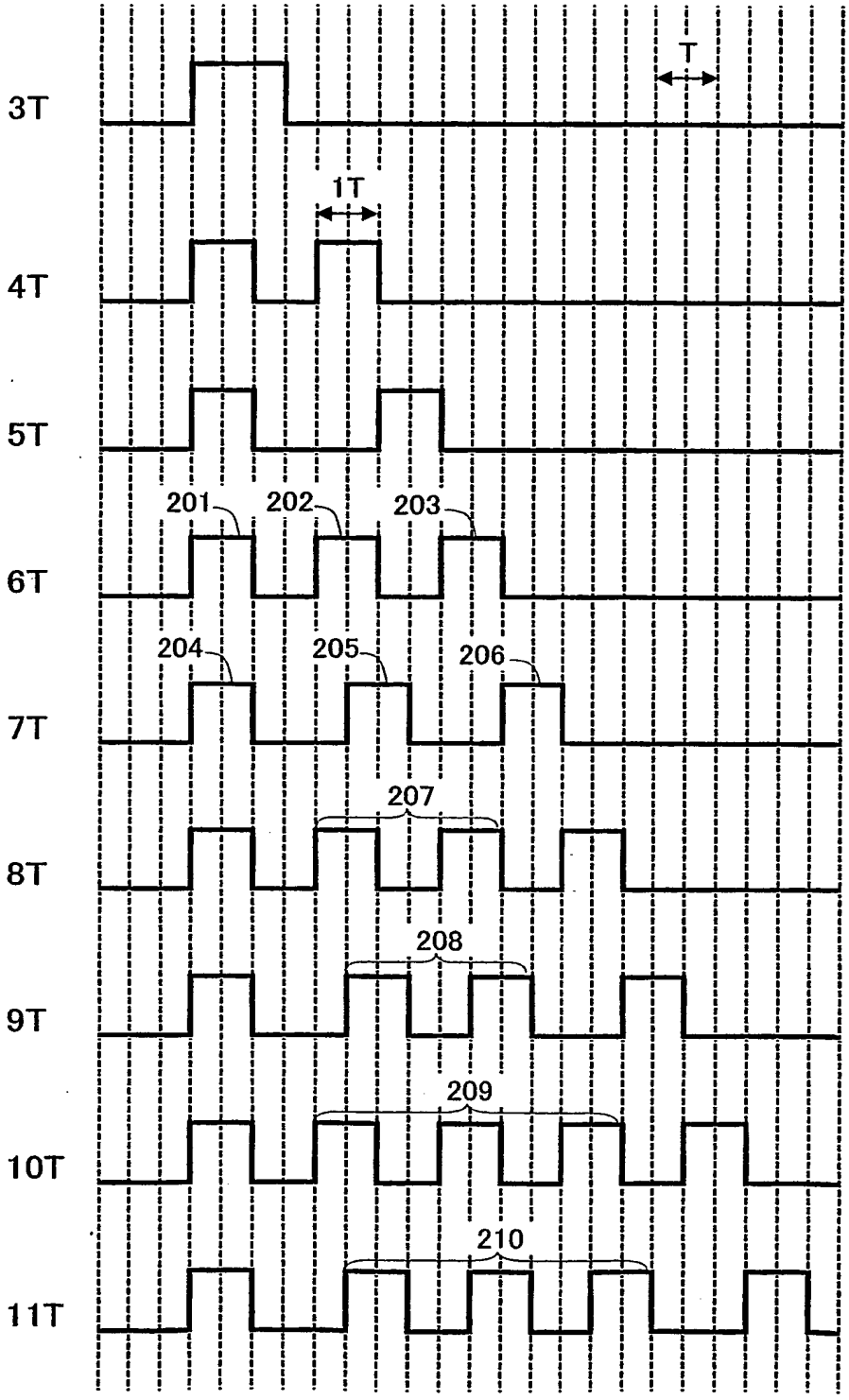

T
3T
1T
4T
5T
201
202
203
6T
204
205
206
7T
207
8T
208
9T
209
10T
210
11T

FIG. 7

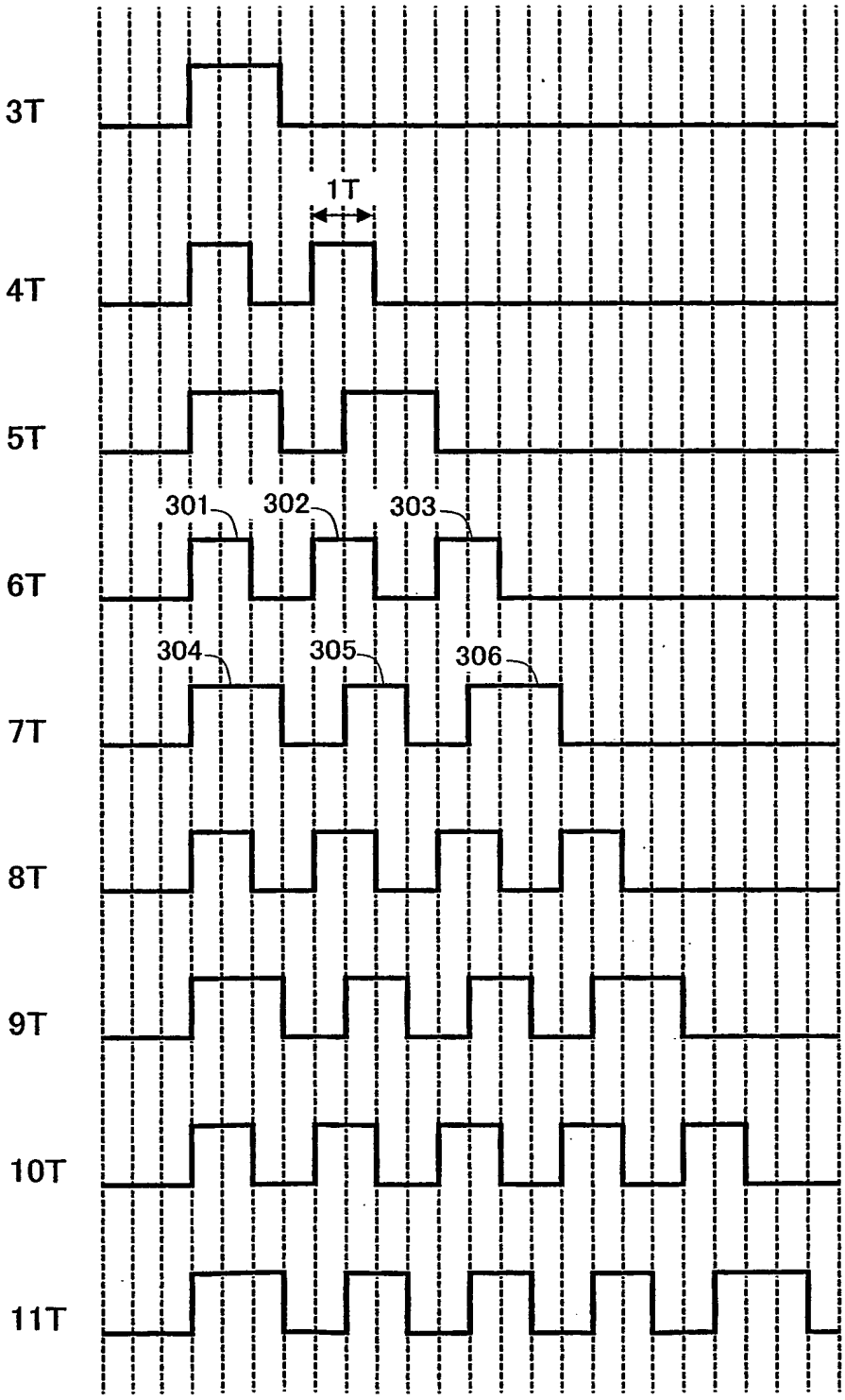


FIG.8

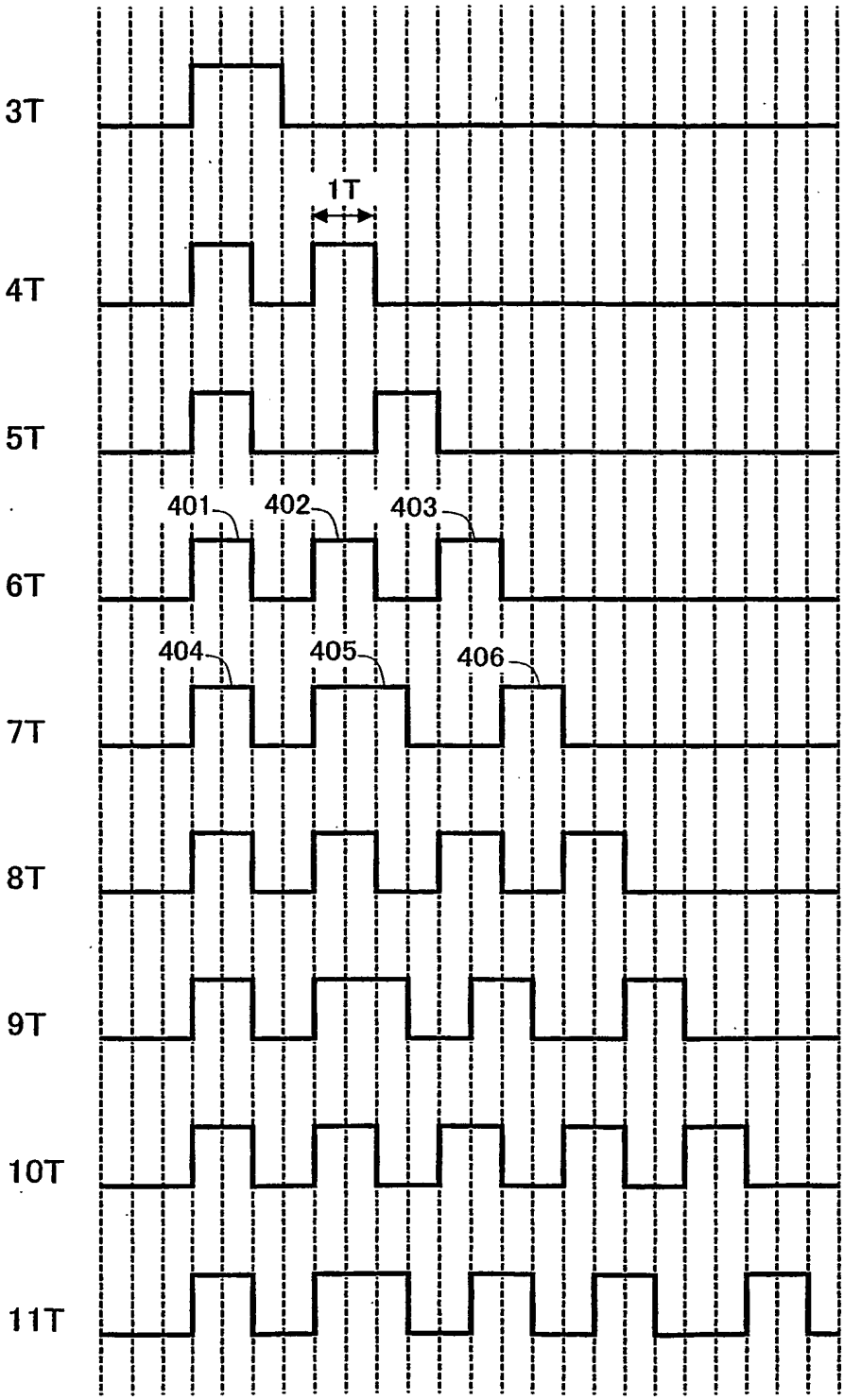


FIG.9

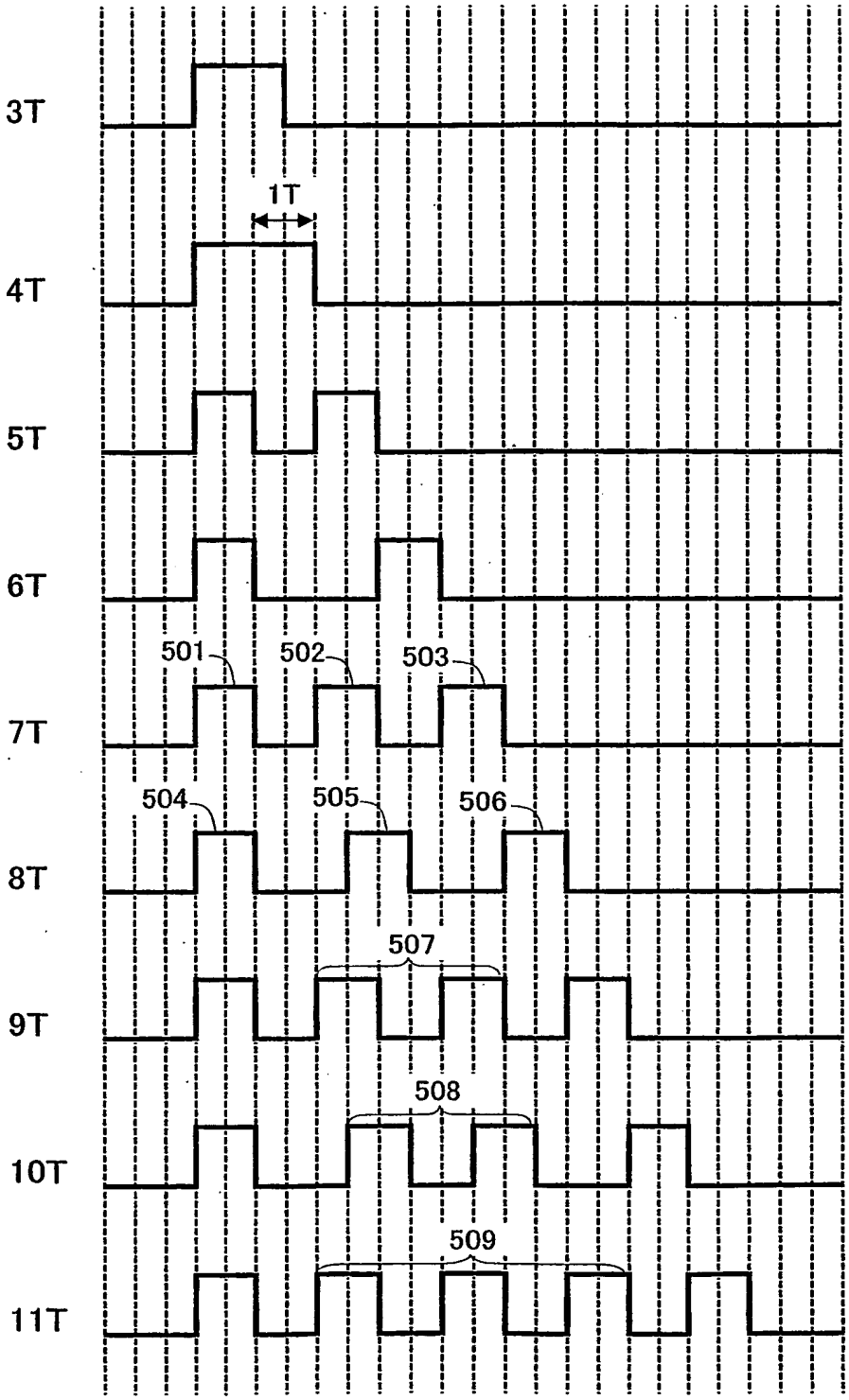


FIG.10

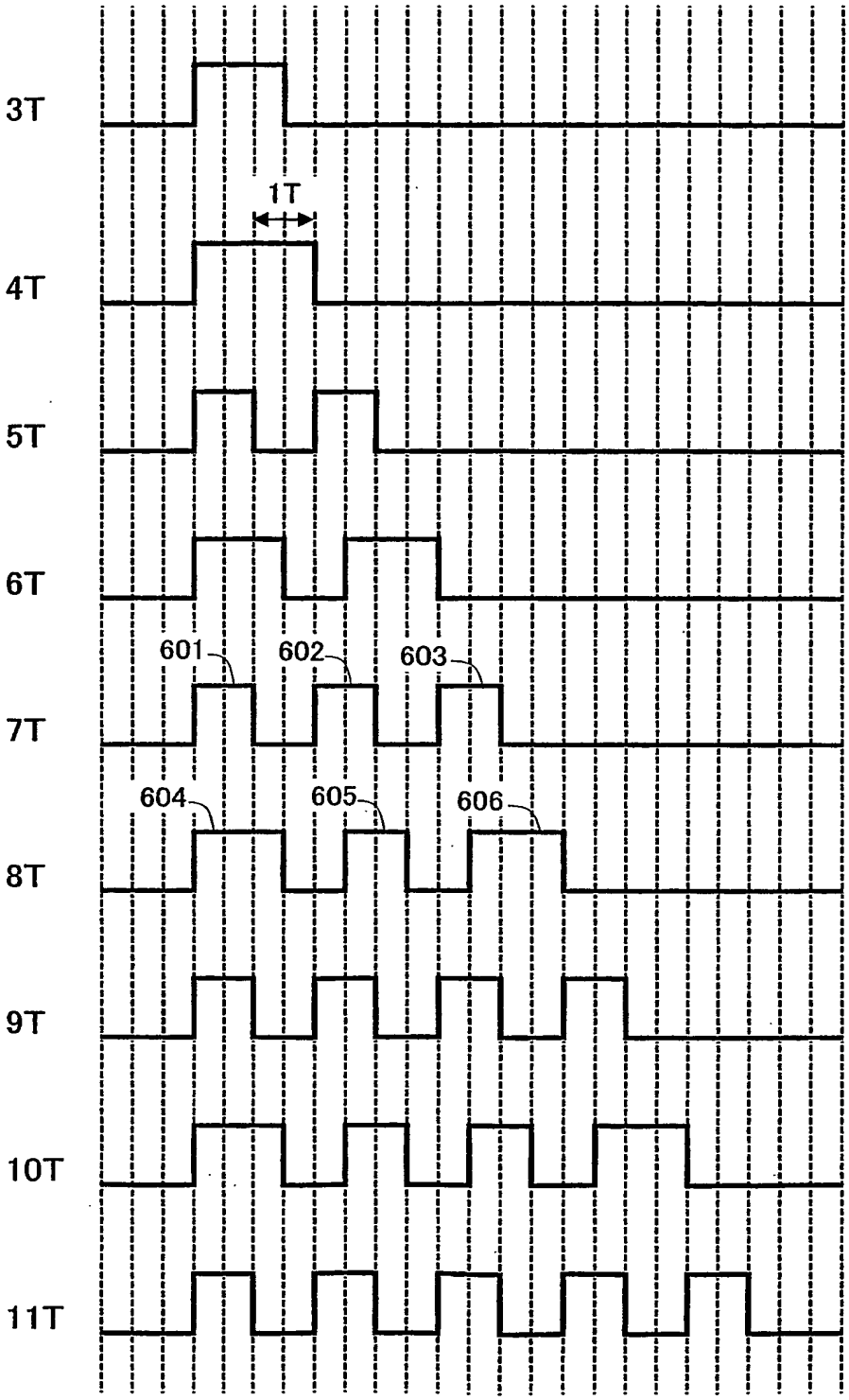


FIG.11

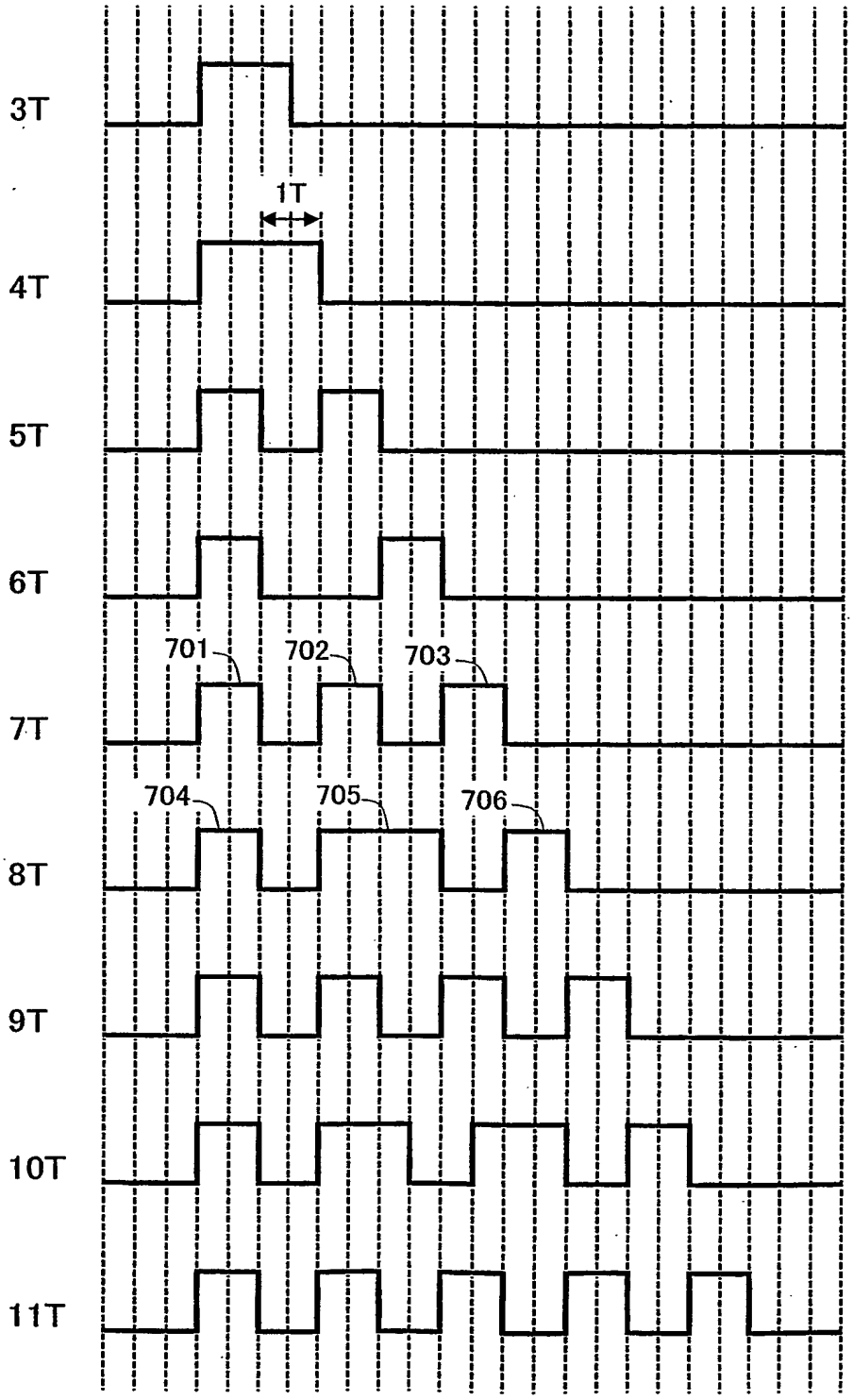


FIG. 12

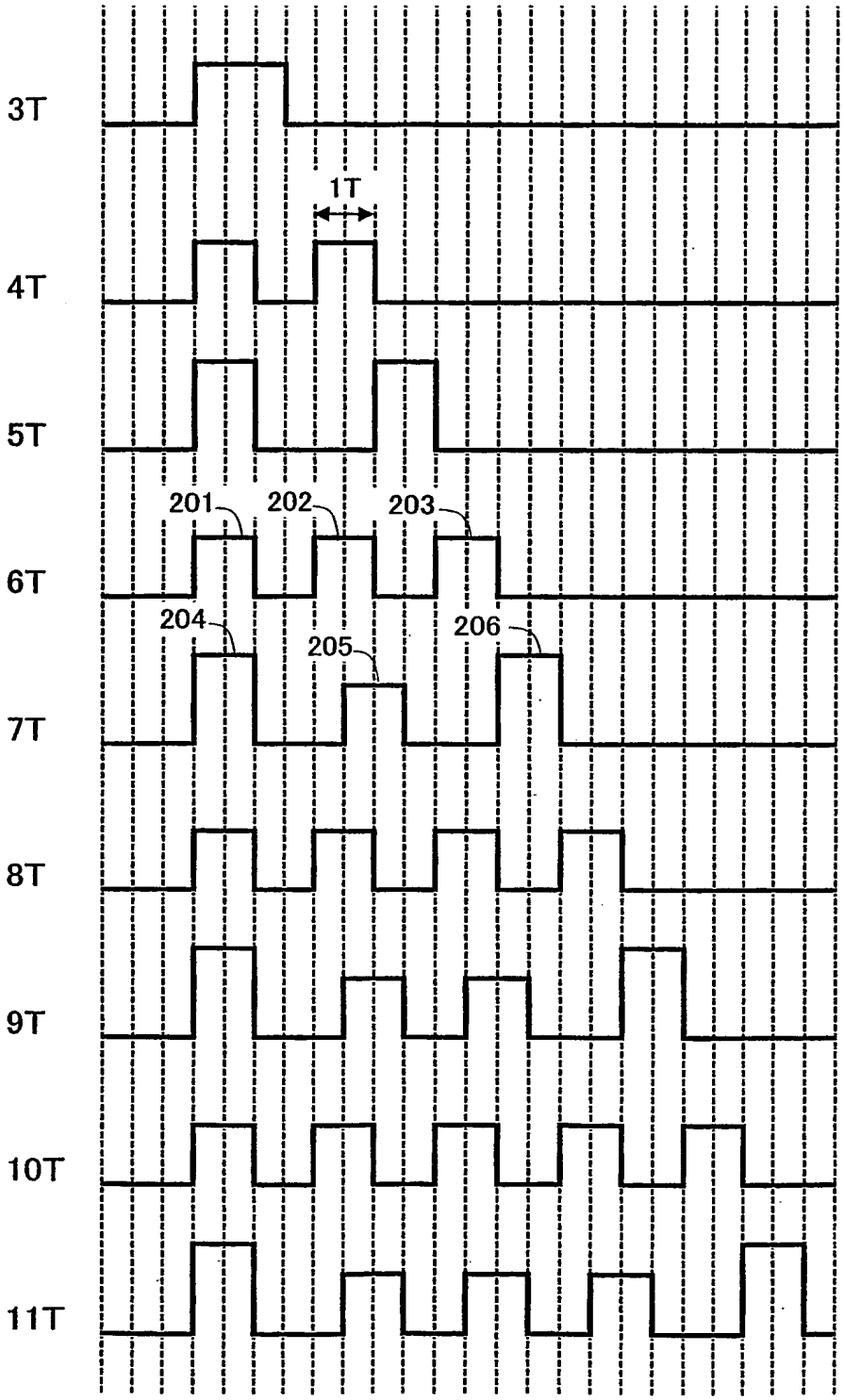


FIG. 13

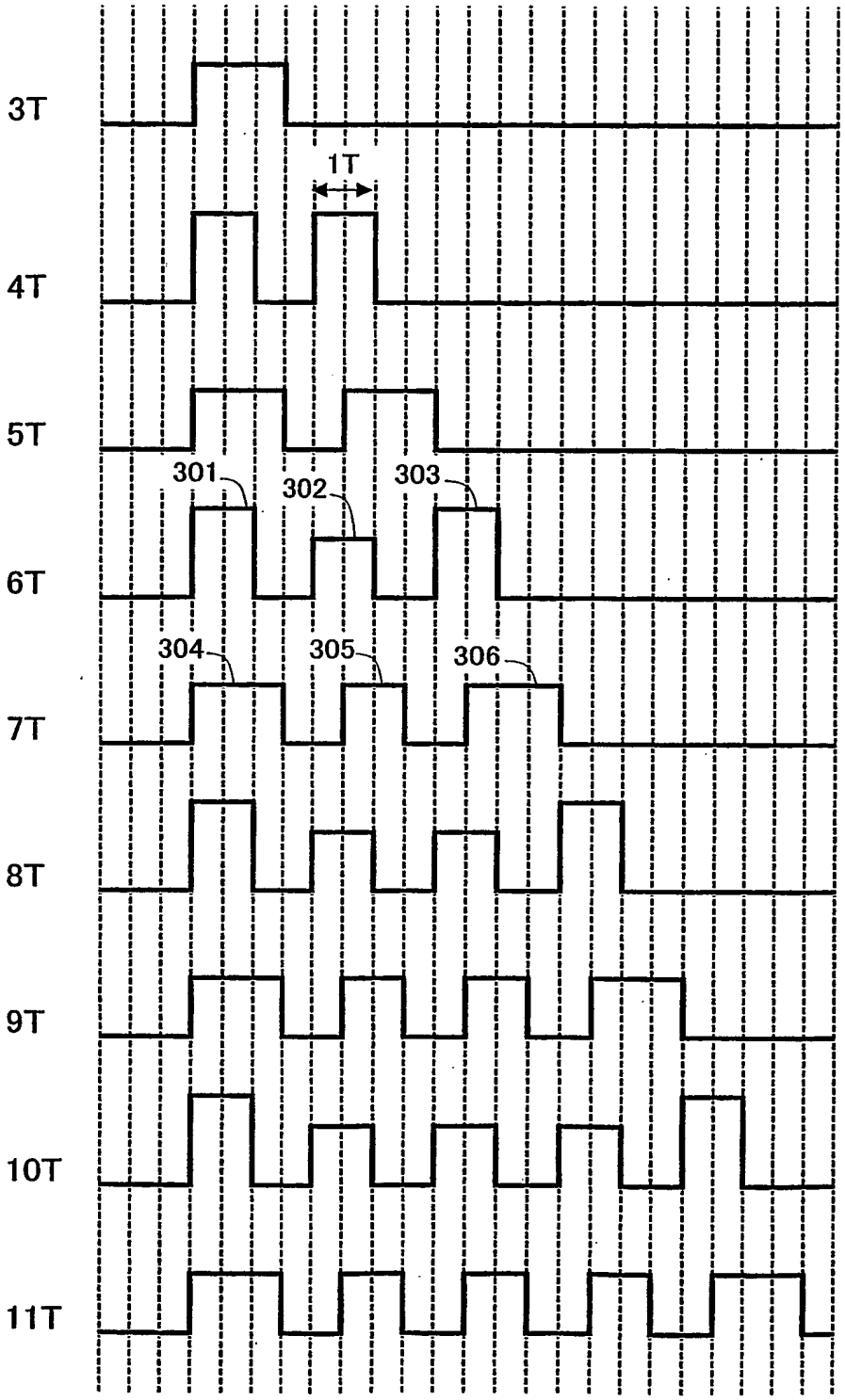


FIG.14

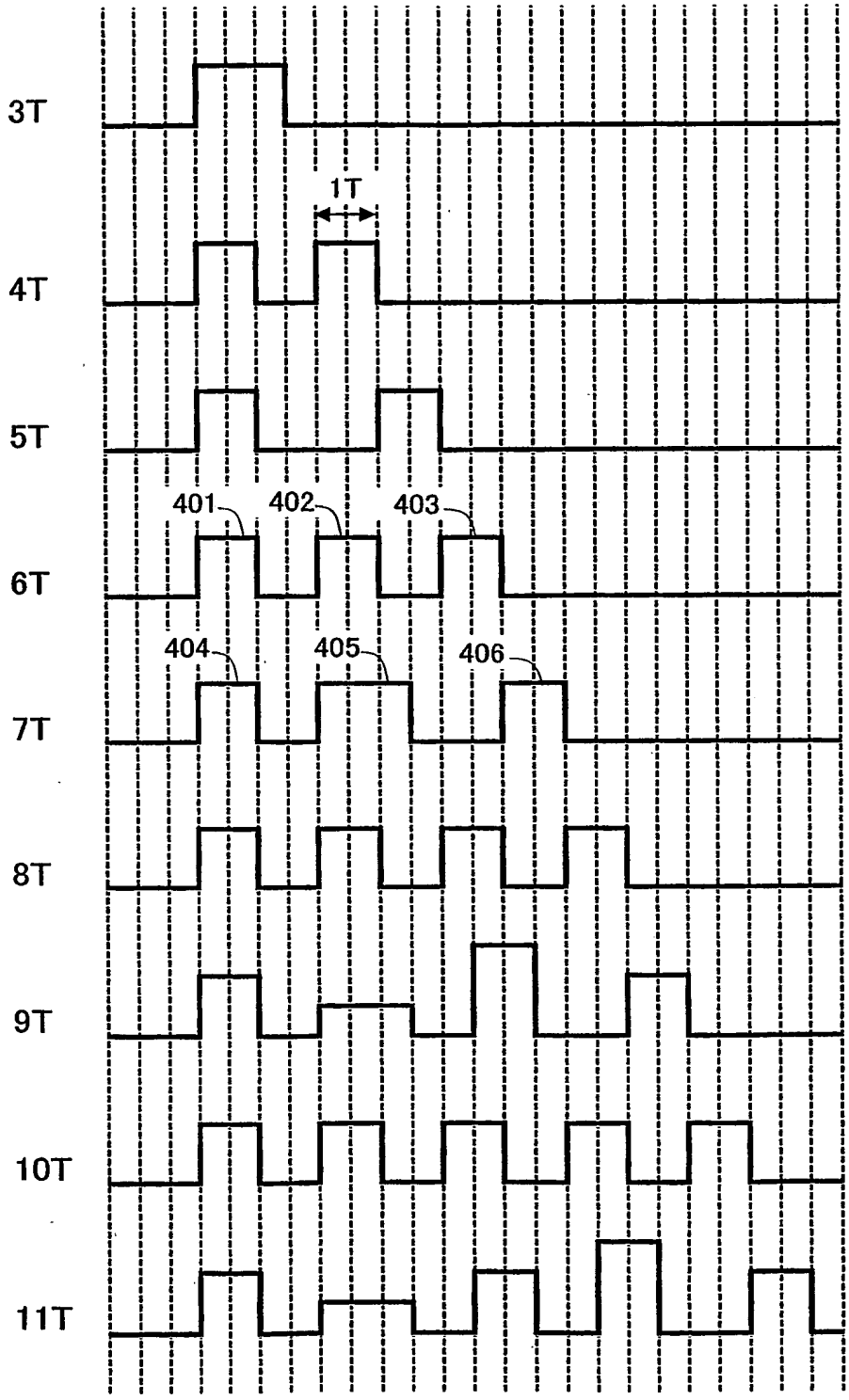


FIG.15

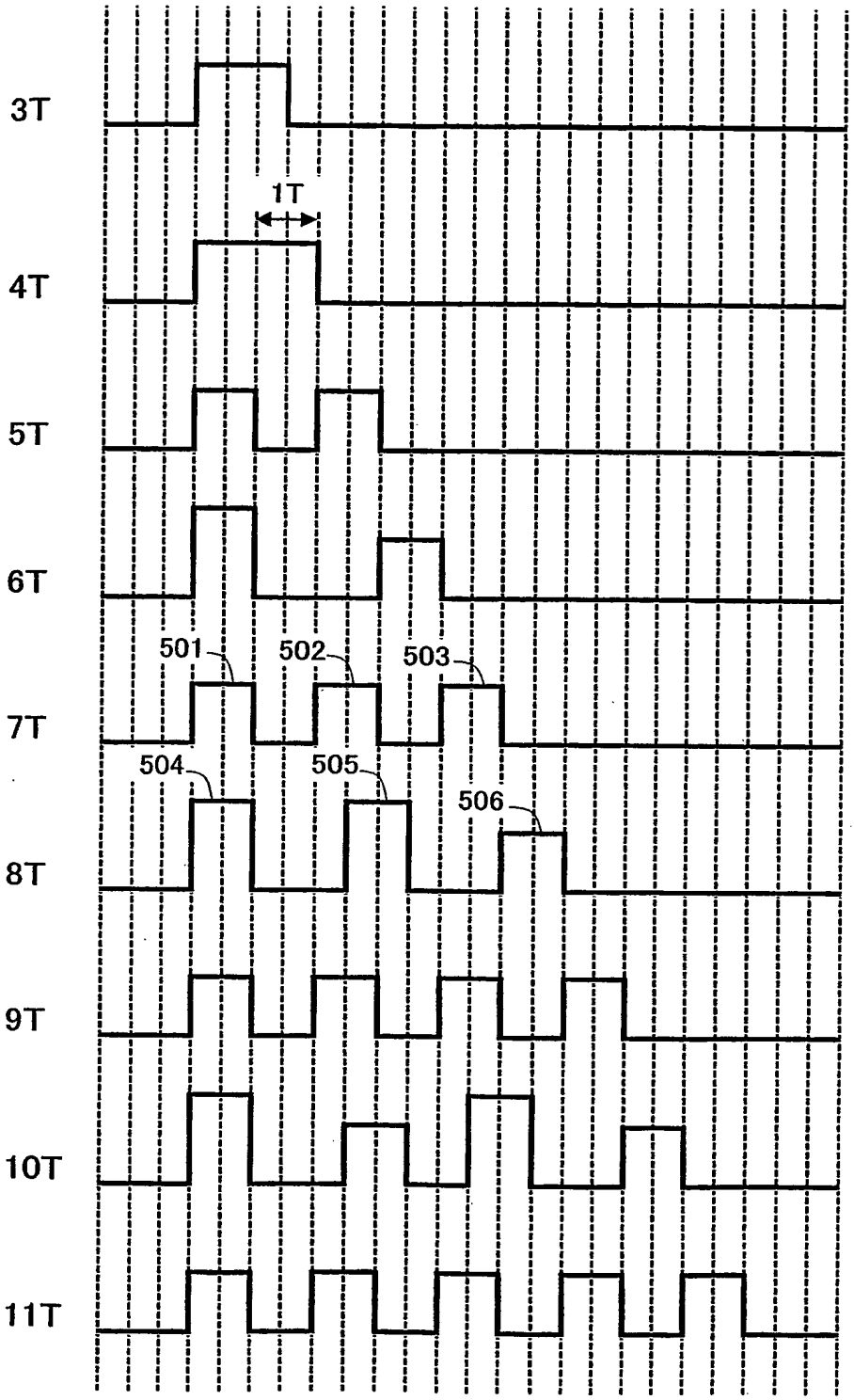


FIG.16

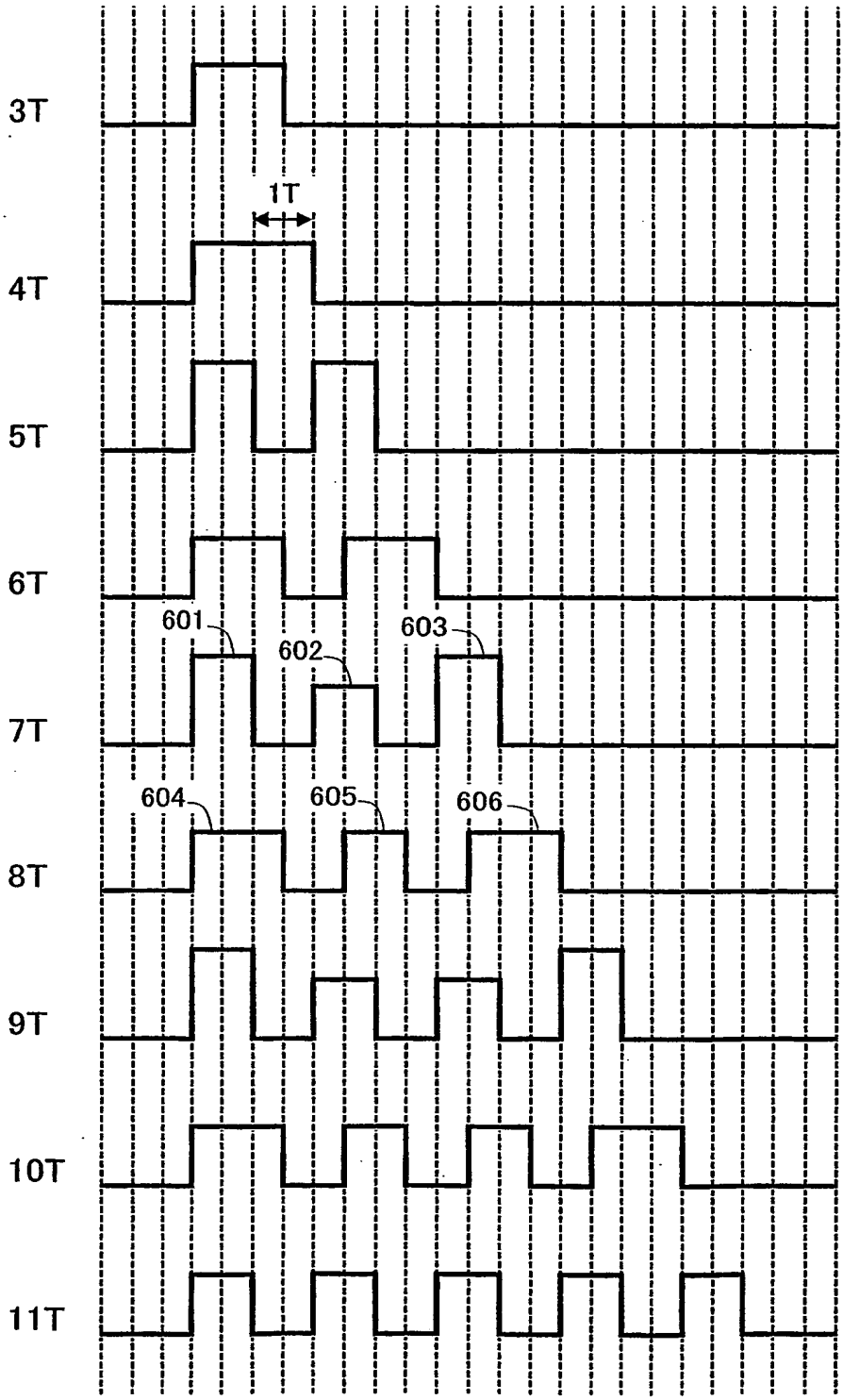
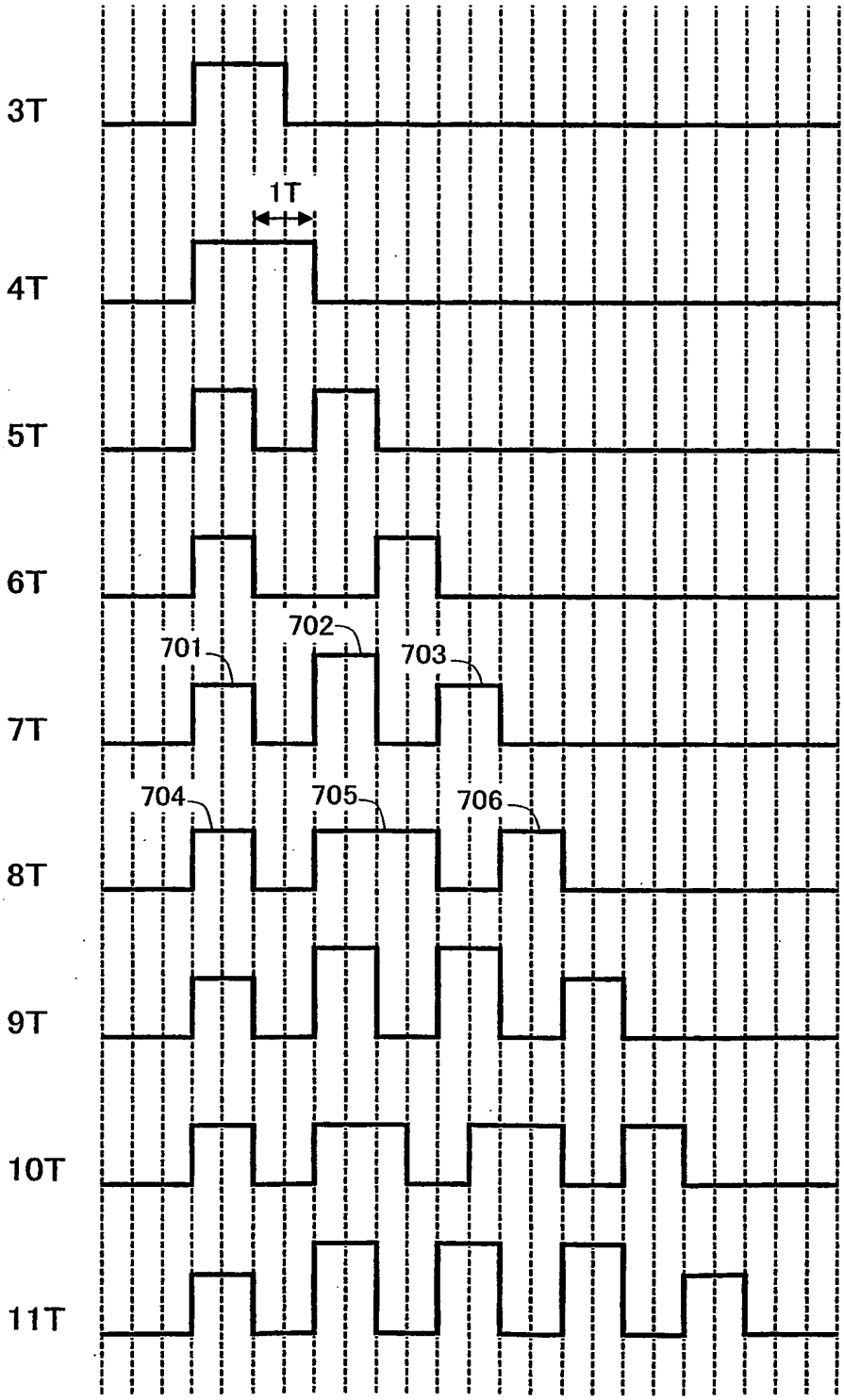


FIG.17



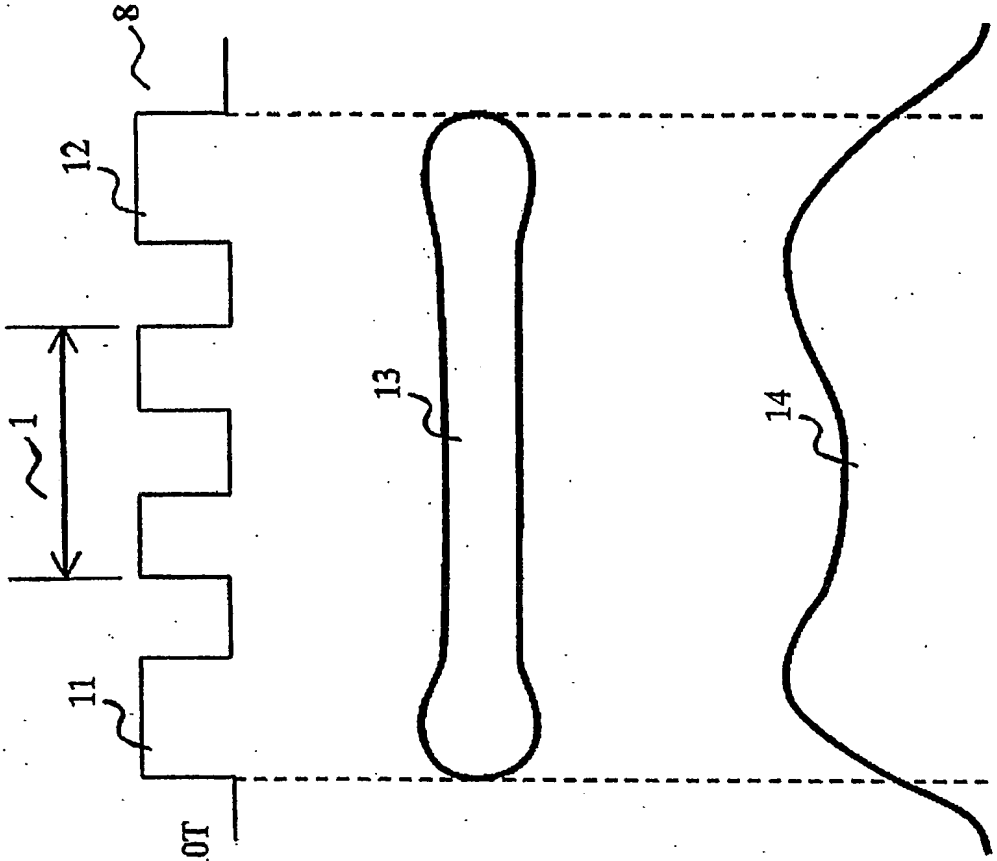


FIG.18B

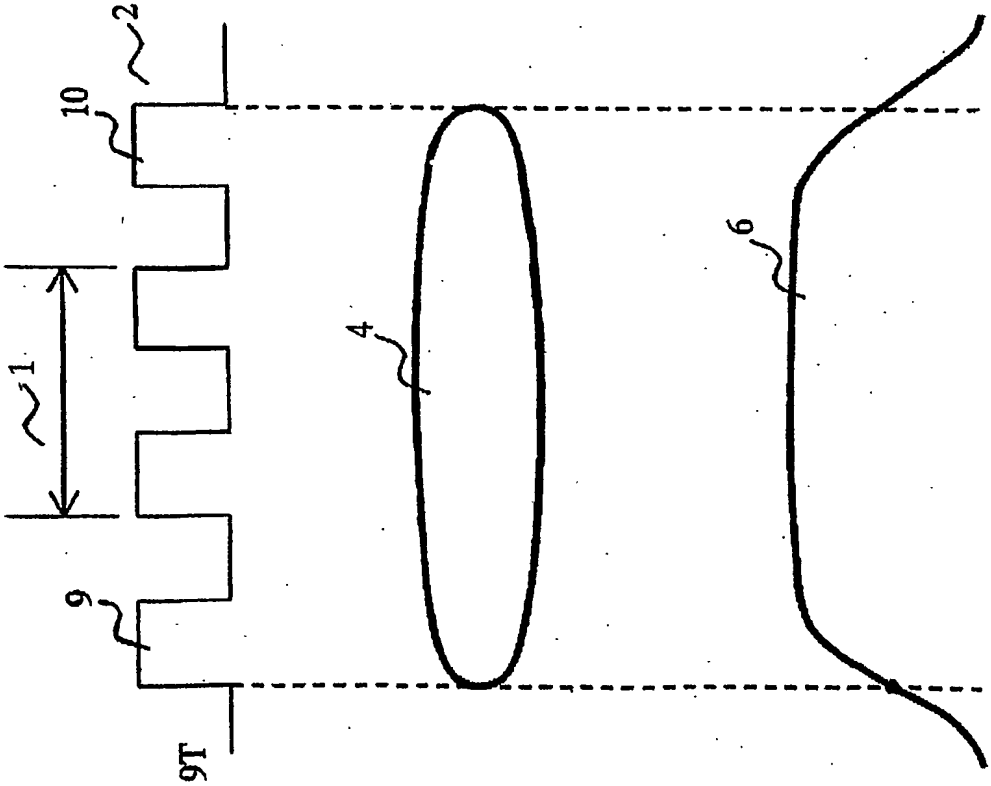


FIG.18A

FIG. 19

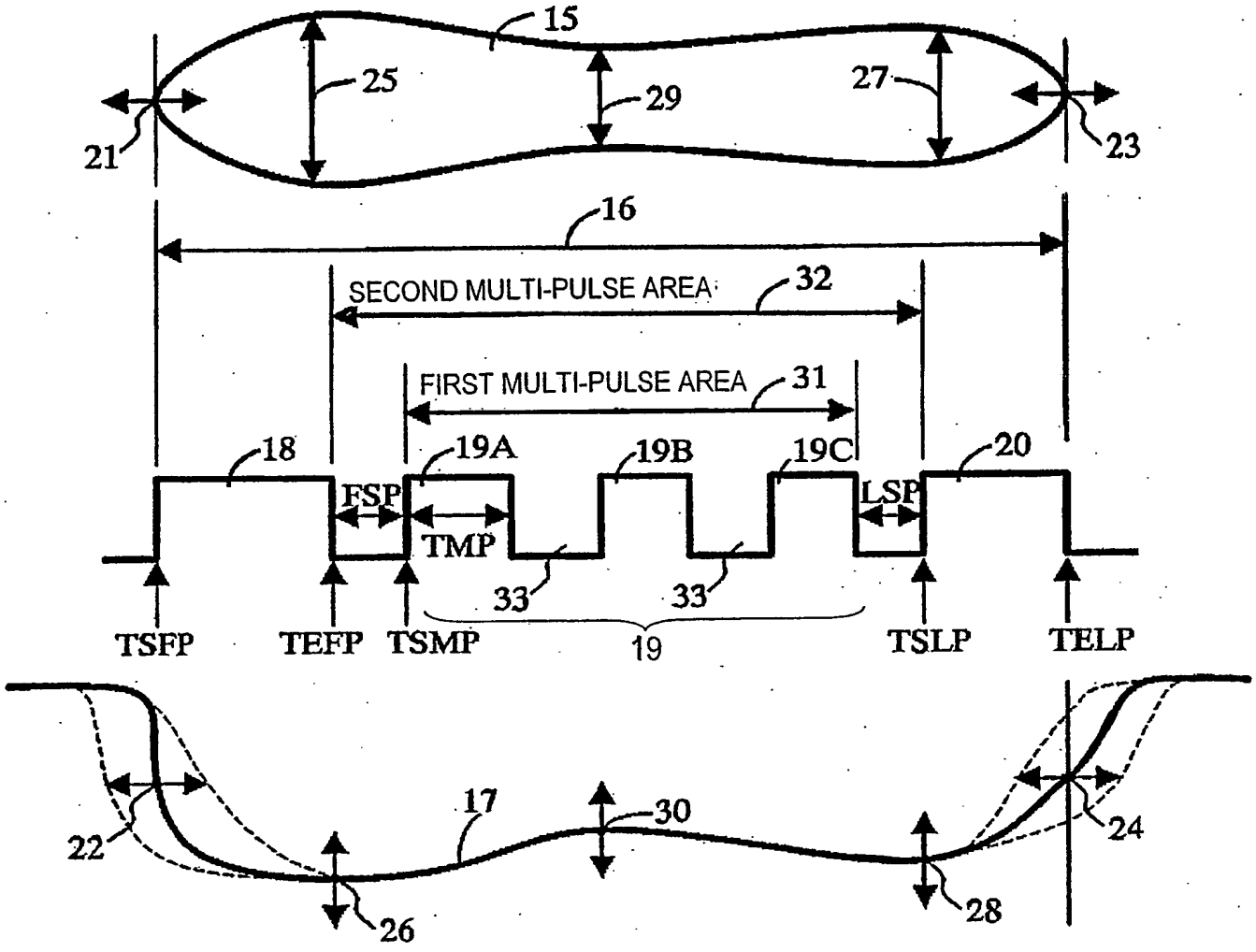

15
25
29
27
21
23
16
SECOND MULTI-PULSE AREA
32
FIRST MULTI-PULSE AREA
31
18
19A
19B
19C
20
FSP
TMP
LSP
33
33
TSFP
TEFP
TSMP
19
TSLP
TELP
17
30
22
24
26
28

FIG.20

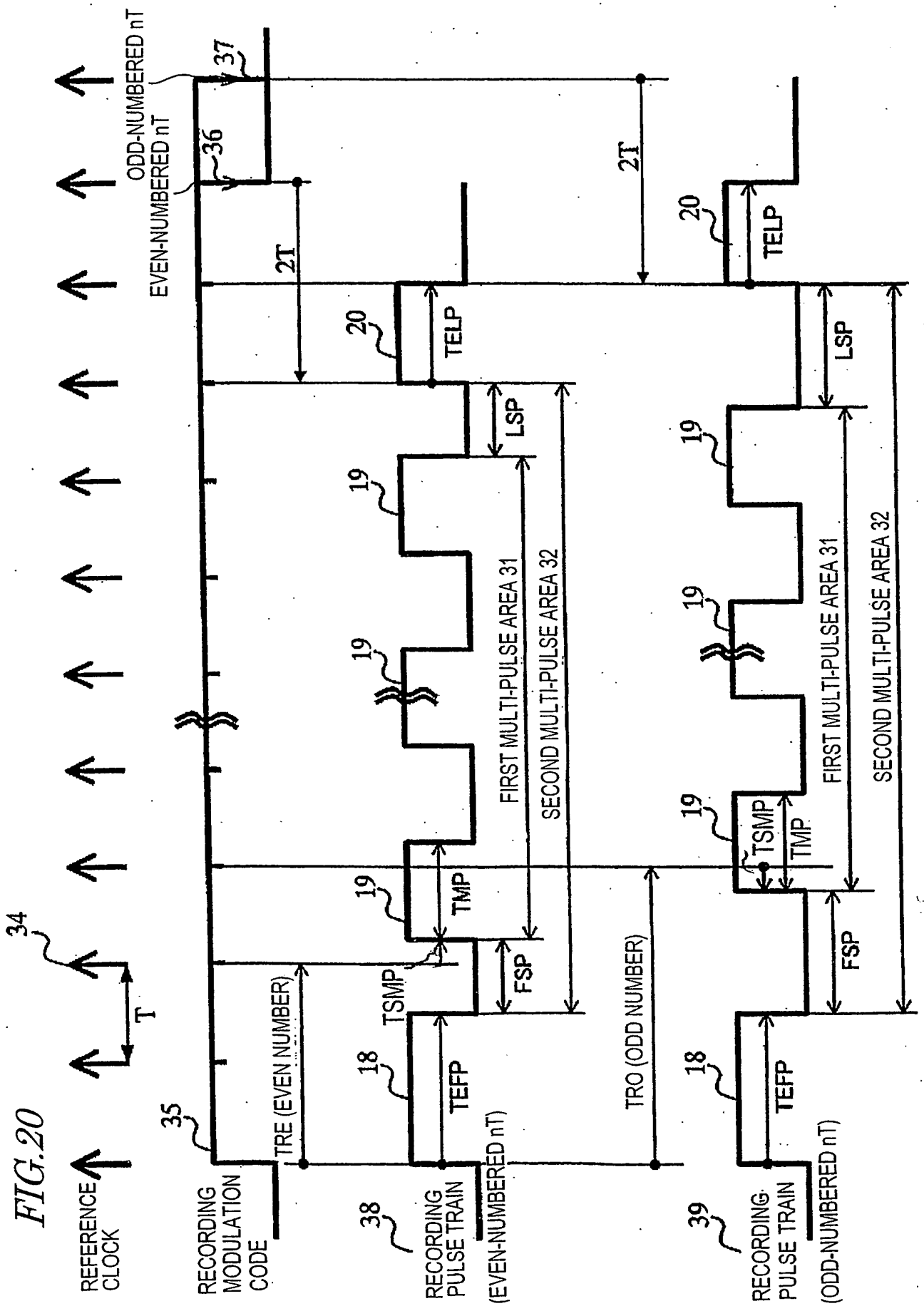

REFERENCE CLOCK
RECORDING MODULATION CODE
RECORDING PULSE TRAIN (EVEN-NUMBERED nT)
RECORDING PULSE TRAIN (ODD-NUMBERED nT)
ODD-NUMBERED nT
EVEN-NUMBERED nT
T
2T
TELP
LSP
TMP
TSMP
TEFP
FSP
TRE (EVEN NUMBER)
TRO (ODD NUMBER)
FIRST MULTI-PULSE AREA 31
SECOND MULTI-PULSE AREA 32
34
35
36
37
38
39
18
19
20

FIG.21

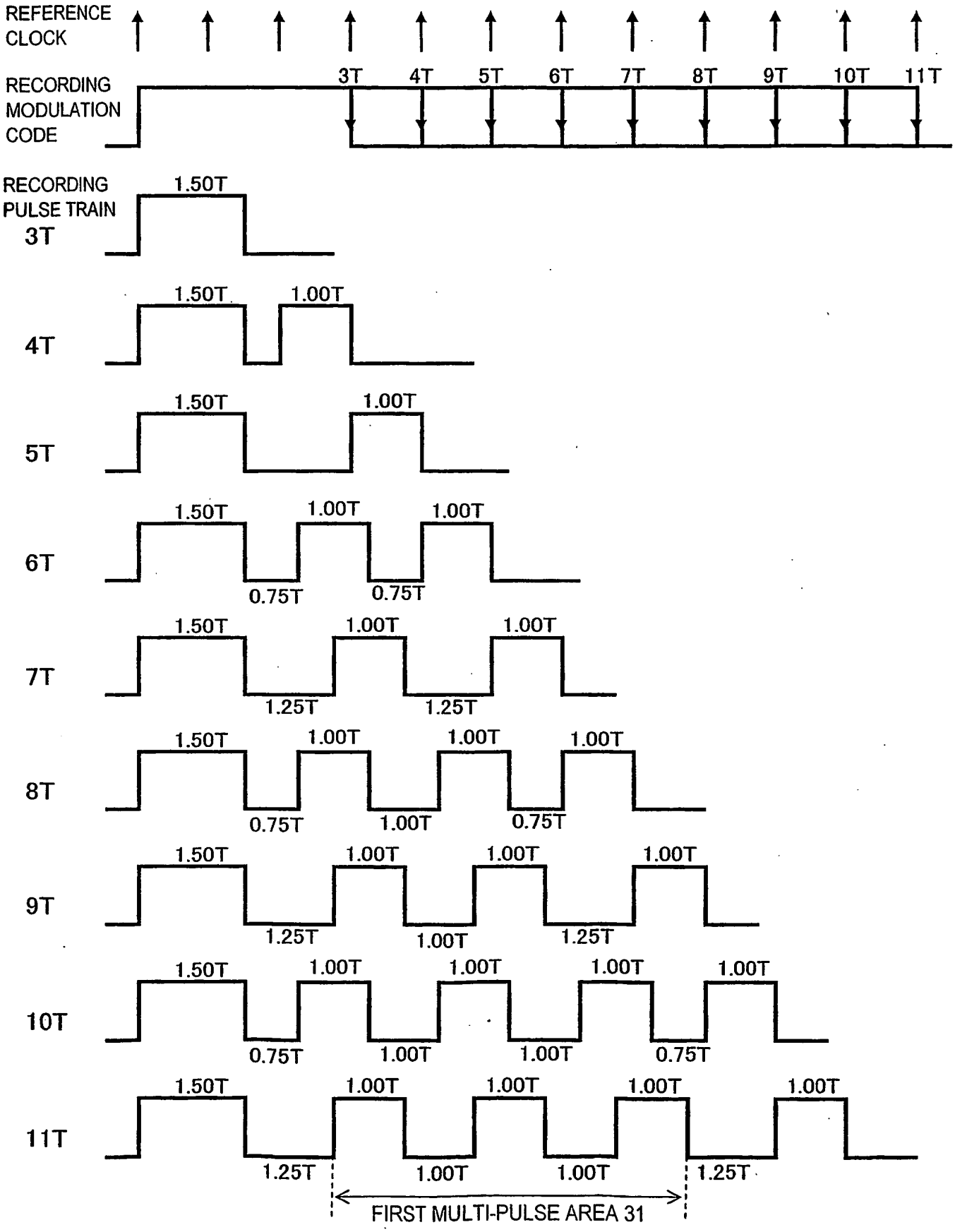

REFERENCE CLOCK
RECORDING MODULATION CODE
3T
4T
5T
6T
7T
8T
9T
10T
11T
RECORDING PULSE TRAIN
1.50T
1.00T
0.75T
1.25T
FIRST MULTI-PULSE AREA 31

FIG.22

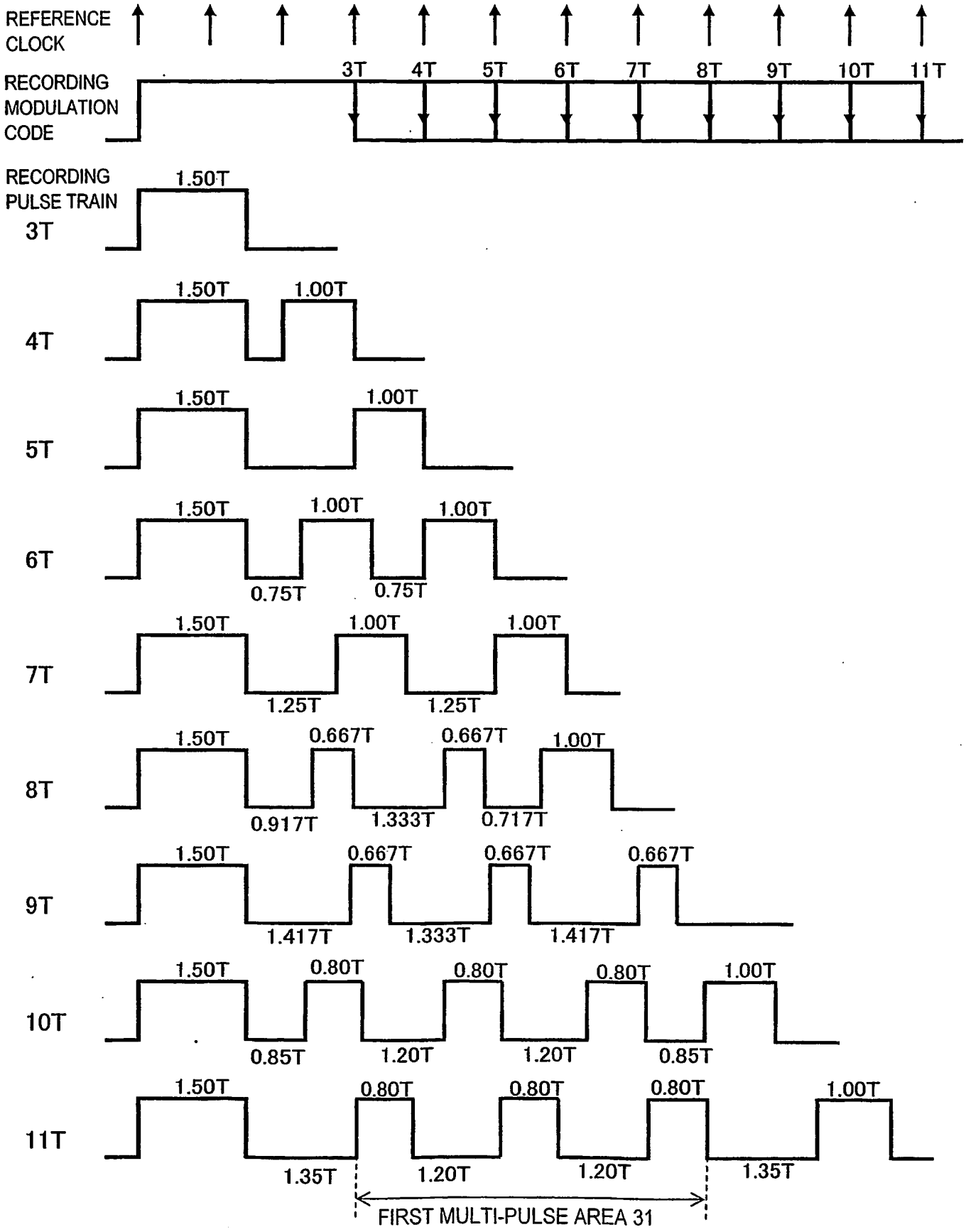
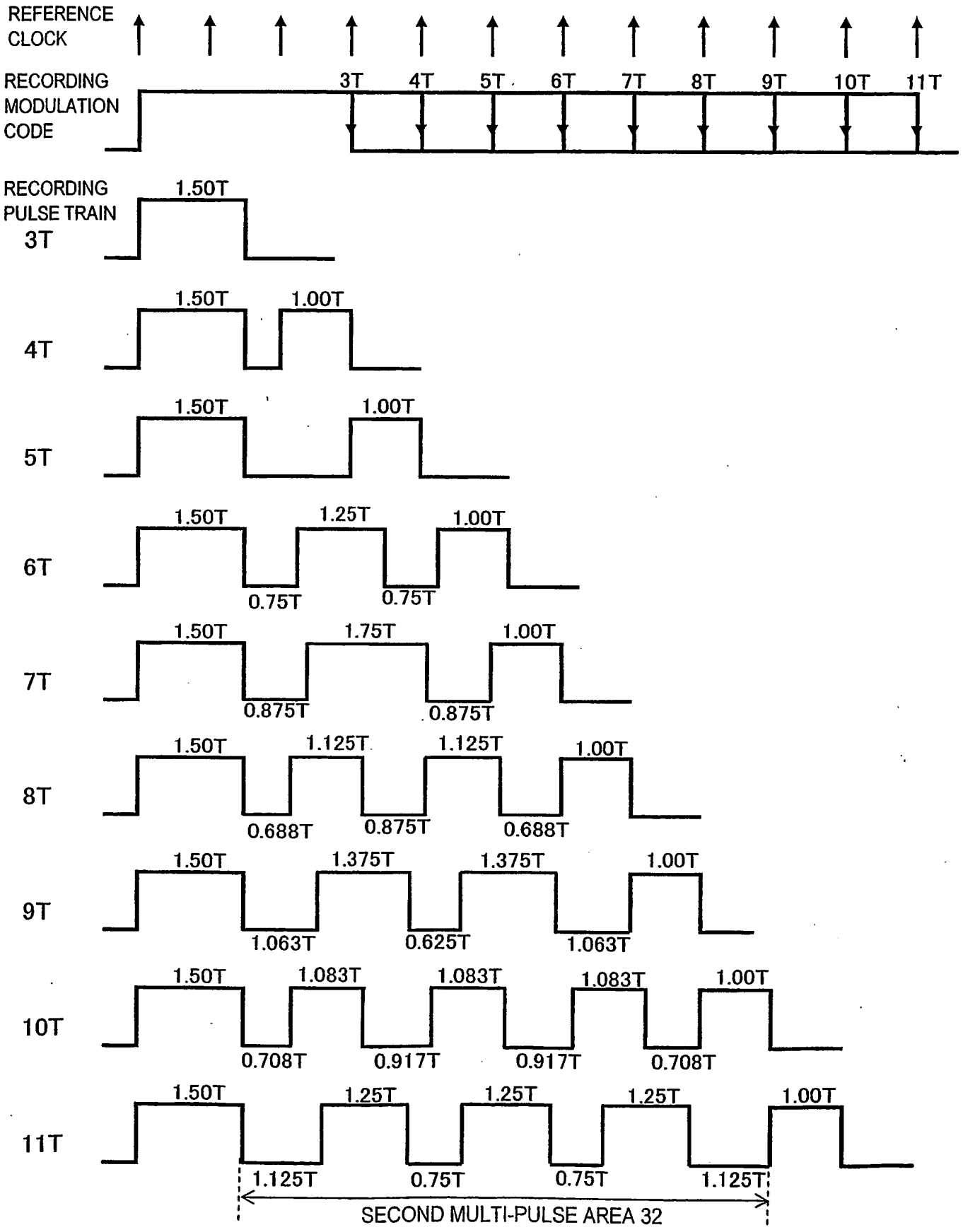

REFERENCE CLOCK
RECORDING MODULATION CODE
3T
4T
5T
6T
7T
8T
9T
10T
11T
RECORDING PULSE TRAIN
1.50T
1.00T
0.75T
1.25T
0.667T
0.917T
1.333T
0.717T
1.417T
0.80T
0.85T
1.20T
1.35T
FIRST MULTI-PULSE AREA 31

FIG.23


REFERENCE CLOCK
RECORDING MODULATION CODE
3T
4T
5T
6T
7T
8T
9T
10T
11T
RECORDING PULSE TRAIN
3T
1.50T
4T
1.50T
1.00T
5T
1.50T
1.00T
6T
1.50T
1.25T
1.00T
0.75T
0.75T
7T
1.50T
1.75T
1.00T
0.875T
0.875T
8T
1.50T
1.125T
1.125T
1.00T
0.688T
0.875T
0.688T
9T
1.50T
1.375T
1.375T
1.00T
1.063T
0.625T
1.063T
10T
1.50T
1.083T
1.083T
1.083T
1.00T
0.708T
0.917T
0.917T
0.708T
11T
1.50T
1.25T
1.25T
1.25T
1.00T
1.125T
0.75T
0.75T
1.125T
SECOND MULTI-PULSE AREA 32

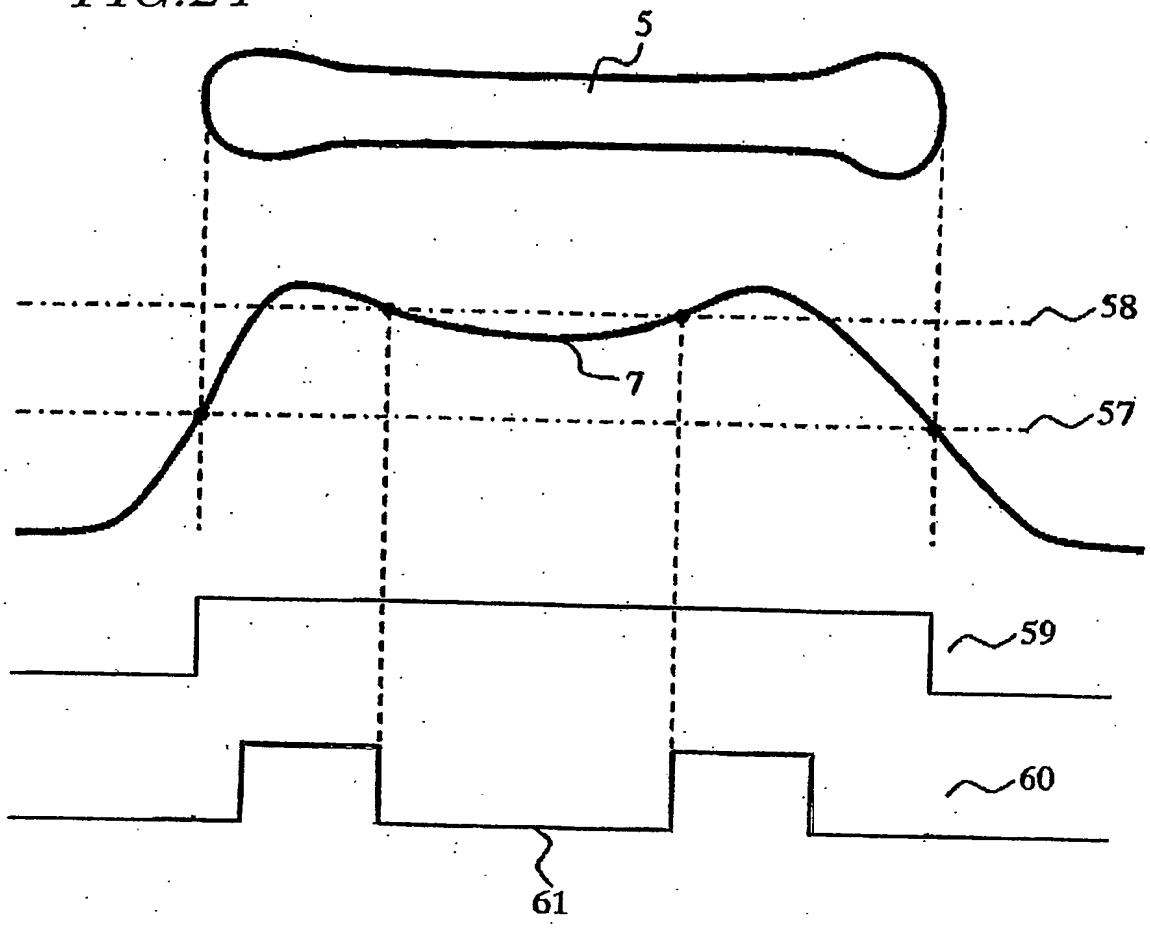



FIG.24